Amendments to the Claims:

Please amend the claims as follows.

1. (Currently amended) A method for detecting interlace motion artifacts comprising:

   a) detecting a presence of multiple vertical frequencies in an image;

   b) analyzing relative levels of the presence of multiple vertical frequencies wherein the relative levels are determined, at least in part, based on a plurality of varying sample set sizes of multiple vertical frequencies; and

   c) ~~deriving an indication of a presence of motion artifacts~~detecting interlace motion artifacts based on the analyzed relative levels.

2. (Currently amended) ~~The method of claim 1 further comprising:~~A method for detecting interlace motion artifacts comprising:

   a) detecting a presence of multiple vertical frequencies in an image;

   b) analyzing relative levels of the presence of multiple vertical frequencies;

   c) detecting interlace motion artifacts based on the analyzed relative levels;

   ~~a~~d) determining an overall measure of image intensity and dynamic range; and

   ~~b~~e) compensating ~~the indication of the presence of the~~ for the detection of interlace motion artifacts in areas of at least one of low luminosity [[or]]and contrast.

3. (Currently amended) A method for the detection of interlaced motion artifacts comprising:

   a) obtaining eight vertically aligned luma data samples;

   b) calculating a partial discrete fourier transform for a f_{max} value;

   c) calculating a partial discrete fourier transform for a $f_{max}/2$ value; and

   d) calculating a partial discrete fourier transform for a $f_{max}/4$ value.

4. (Original) The method of claim 3 further comprising:

a) obtaining four vertically aligned luma data samples;

b) calculating a second f_{max} value; and

c) passing the f_{max} value, the $f_{max}/2$ value, the $f_{max}/4$ value and the second f_{max} value though a filter resulting in a filtered f_{max} value, a filtered $f_{max}/2$ value, a filtered $f_{max}/4$ value and a filtered second f_{max} value.

5. (Original) The method of claim 4 wherein the filtered values are obtained by:

a) obtaining a first and second previous f_{max} values, a current f_{max} value and a next and second next f_{max} values;

b) doubling the first previous, current and next f_{max} values;

c) summing the doubled first previous, current and next f_{max} values with the second previous and second next f_{max} value; and

d) dividing the sum by 8.

Claims 6-9 (Canceled)

10. (Currently amended) A method for the prevention of false detection of interlace motion artifacts comprising:

a) obtaining a plurality of f_{max} frequency detection values;

b) comparing the plurality of f_{max} frequency detection values to a threshold; and

c) adjusting the plurality of f_{max} frequency detection values based upon the comparison wherein the plurality of f_{max} frequency detection values are adjusted, at least in part, by subtracting a variable multiple from the plurality of f_{max} frequency detection values based on a value of f_{max}.

11. (Currently amended) ~~The~~A method ~~of claim 10~~for the prevention of false detection of interlace motion artifacts comprising: ~~wherein the plurality of fmax frequency detection values comprises~~

a) obtaining a composite fmax frequency detection value, a level-boosted fmax/2 frequency detection value and a level-boosted fmax/4 frequency detection value;

b) comparing the composite f_{max} frequency detection value, the level-boosted $f_{max}/2$ frequency detection value and the level-boosted $f_{max}/4$ frequency detection value to a threshold; and

c) adjusting the composite f_{max} frequency detection value, the level-boosted $f_{max}/2$ frequency detection value and the level-boosted $f_{max}/4$ frequency detection value based upon the comparison.

12. (Original) The method of claim 11 wherein the composite f_{max} frequency detection value is adjusted by:

a) comparing the composite f_{max} frequency detection value to a first low frequency threshold;

b) multiplying a first low frequency scale factor by the level-boosted $f_{max}/2$ frequency detection value and subtracting from the composite f_{max} frequency detection value if the composite f_{max} frequency detection value is less than the first low frequency, threshold; and

c) multiplying a second low frequency scale factor by the level-boosted $f_{max}/4$ frequency detection value and subtracting from the composite f_{max} frequency detection value if the composite f_{max} frequency detection value is greater than the first low frequency threshold.

13. (Original) The method of claim 12 wherein the composite f_{max} frequency detection value is adjusted by:

a) comparing the level-boosted $f_{max}/4$ frequency detection value to a second low frequency threshold;

b) multiplying a third low frequency scale factor by the level-boosted $f_{max}/4$ frequency detection value and subtracting from the composite f_{max} frequency detection value if the level-boosted $f_{max}/4$ frequency detection value is less than the second low frequency threshold; and

c) multiplying a fourth low frequency scale factor by the level-boosted $f_{max}/4$ frequency detection value and subtracting from the composite f_{max}

frequency detection value if the level-boosted $f_{max}/4$ frequency detection value is greater than the second low frequency threshold.

14. (Original) The method of claim 13 further comprising setting the composite f_{max} frequency detection value to zero if the composite f_{max} frequency detection value is less than zero.

15. (Original) The method of claim 13 wherein the composite f_{max} frequency detection value is lowpass filtered.

16. (Original) The method of claim 15 wherein the lowpass filtering is comprises:

a) obtaining a first and second previous f_{max} values, the composite f_{max} frequency detection value and a next and second next f_{max} values;

b) doubling the first previous, and next f_{max} values;

c) octupling the composite f_{max} frequency detection value;

d) summing the doubled first previous f_{max} value, the doubled next f_{max} value, the octupled f_{max} frequency detection value with the second previous and second next f_{max} value; and

e) dividing the sum by 8.

17. (Canceled)